



Acrow Bridge Enables Rapid Road Restoration After Flood

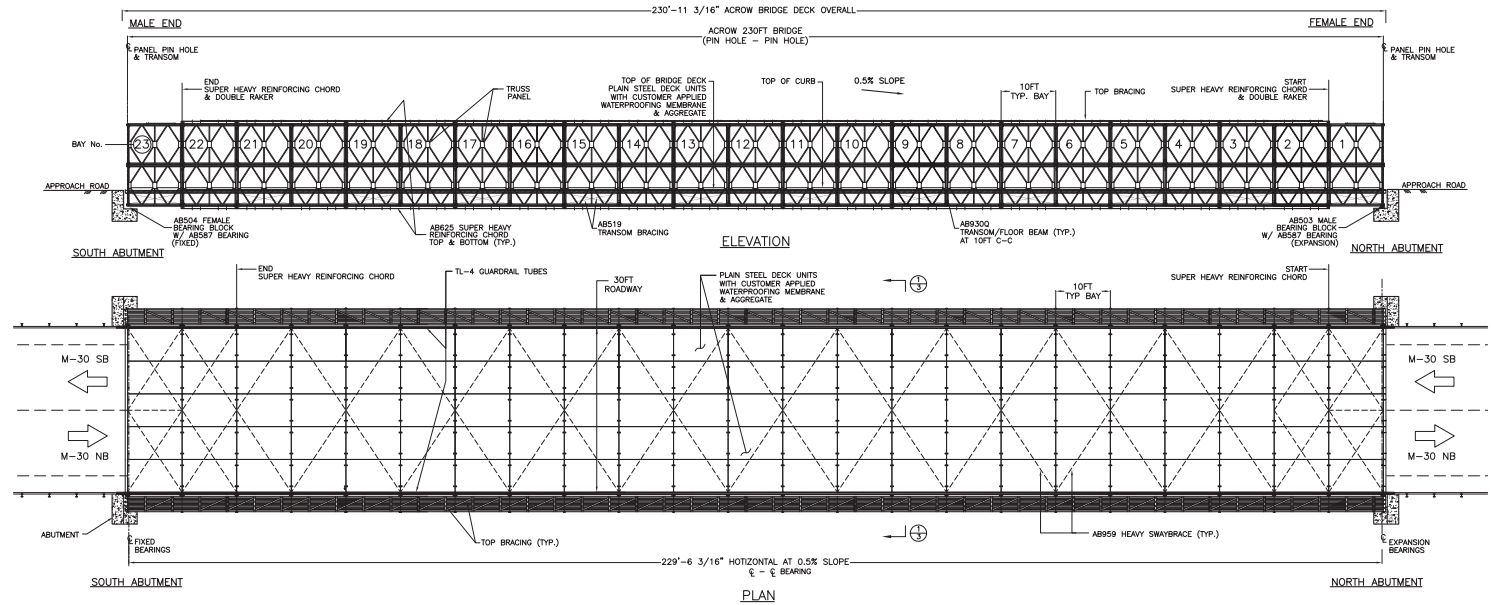
Extensive rains in May resulted in destruction of structure following dam breach

Heavy rains and floodwater in May 2020 in Michigan, led to the collapse of the Edenville Dam. The Michigan Department of Transportation (MDOT) and local officials had to close nearly 30 roads and bridges, including two locations along the M-30 corridor. Entire communities were divided, forcing commuters and local residents to follow lengthy detours. 10,000 people were immediately displaced and one of the area's main bridges, the M-30 causeway bridge spanning the Tobacco River, was completely destroyed.

Design and construction of a permanent replacement would take years. With no reasonable local detour route, MDOT decided on a long-term temporary structure to restore mobility as quickly as possible and mitigate extended economic damage. A pre-engineered modular steel 230 foot (70.1m) Acrow bridge was procured.

It is expected to be in service for up to 3 years, but designed to last a minimum of 15 years should long-term construction plans be suspended. This allows MDOT time to analyze the current and future transportation needs of the corridor. Acrow's durable modular steel bridges offer ideal, immediate solutions for restoring damaged or destroyed infrastructure. In-stock components can be delivered quickly and easily, even over damaged roads.

Construction on the project began in December 2020; the bridge delivered to contractor, Anlaan Corporation, the following month. Despite adverse weather, the span was opened to traffic in March 2021, less than a year after the floods, rather than the standard three to five years design and approval process. When the permanent bridge is opened, the modular bridge will be disassembled and the components stored for reuse in planned and emergency projects across the state.



Specifications

Bridge length:

230' (70.1m)

Roadway width:

30' (9.15m) curb-to-curb

Deck surface:

Customer applied asphalt overlay

Bridge erection method:

Bridge assembled with cranes and launched with a Cat D-8 Dozer.

Design load:

Two lanes of HL-93

Standard Acrow bridge finish:

- All major components galvanized to AASHTO M111-ASTM A123
- All bolts are hot-dip galvanized
- All pins are electrogalvanized

Standard Acrow bridge specification:

- (A) Panel chords, diagonals, verticals, reinforcing chords, rakers to AASHTO M223 GD 65
- (B) Raker braces, transoms, top chord braces, swaybraces, transom braces, diagonal chord braces, decking to AASHTO M223 GD 50
- (C) Panel pins to ASTM A 193 GD B7
- (D) Bolts to AASHTO M164M - A325